

Date: Monday, 07/04/2008 2:30:08 PM  
 User: Julie Lecocq

## Process Sheet

<b>Customer</b>	: CU-DAR001 Dart Helicopters Services	<b>Drawing Name</b>	: BRACKET ASSEMBLY
<b>Job Number</b>	: 38444		
<b>Estimate Number</b>	: 10291		
<b>P.O. Number</b>	:	<b>Part Number</b>	: D3183044
<b>This Issue</b>	: 07/04/2008	<b>S.O. No.</b>	:
<b>Prsht Rev.</b>	: NC	<b>Drawing Number</b>	: D3183 REV C1
<b>First Issue</b>	: 11	<b>Project Number</b>	: N/A
<b>Previous Run</b>	: 36400	<b>Drawing Revision</b>	: C1
	<b>Type</b> : MACHINED PARTS	<b>Material</b>	:
<b>Written By</b>	:	<b>Due Date</b>	: 30/04/2008
<b>Checked &amp; Approved By</b>	: <u>JD 08.4.08</u>	<b>Qty:</b>	8 Um: Each
<b>Comment</b>	: Est Rev: Pick: A 04.02.18 New issue KJ/DS		

## Additional Product

Job Number:



<b>Seq. #:</b>	<b>Machine Or Operation:</b>	<b>Description :</b>
----------------	------------------------------	----------------------

1.0	M174B2000X01500	17-4 SS Bar
-----	-----------------	-------------



**Comment:** Qty.: 0.4812 f(s)/Unit Total: 3.8497 f(s)  
 Material: 17-4 SS Bar per AMS 5604/5643  
 (M17-4-B1.500x02.000)  
 Identify for D3183-4  
 Batch: M17478

H.A 08/05/15

2.0	BAND SAW	BAND SAW
-----	----------	----------



**Comment:** BAND SAW  
 Cut blanks: (1.500" x 2.000") 5.500" long

MMF / H.A 08/05/15

3.0	HAAS1	HAAS CNC VERTICAL MACHINING #1
-----	-------	--------------------------------

**Comment:** HAAS CNC VERTICAL MACHINING #1

1-Machine D3183-4 as per Folio FA322 and Dwg D3183  
 Identify as D3183-4

2-Deburr

3-Scribe batch number

SF 08/05/22

H.A / gml 08/05/21

4.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE
-----	-----	--

**Comment:** INSPECT PARTS AS THEY COME OFF MACHINE

H.A / gml 08/05/21

31  
29 31

Date: Monday, 07/04/2008 2:30:08 PM  
User: Julie Lecocq

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BRACKET ASSEMBLY

Job Number: 38444

Part Number: D3183044

Job Number:



Seq. #:	Machine Or Operation:	Description :
---------	-----------------------	---------------

5.0	QC8	SECOND CHECK
-----	-----	--------------



Comment: SECOND CHECK

JL 08/05/23

6.0	D312121	Bolt
-----	---------	------



Comment: Qty.: 2.0000 Each(s)/Unit Total : 16.0000 Each(s)

Pick:

Qty Part Number	Description	Batch
2 D3121-21	Bolt	B39047

EB08/05/23

7.0	D3183045	Bearing Assembly
-----	----------	------------------



Comment: Qty.: 2.0000 Each(s)/Unit Total : 16.0000 Each(s)

Pick:

Qty Part Number	Description	Batch
2 D3183-045 Bearing Ass	B37774	(11) B38104

EB08/05/23

8.0	SMALL FAB 1	SMALL & MEDIUM FAB RESOURCE 1
-----	-------------	-------------------------------



Comment: SMALL & MEDIUM FAB RESOURCE 1  
Assemble D3183-043 as per Dwg D3183.

EB08/05/23 (8)

9.0	QC5	INSPECT WORK TO CURRENT STEP
-----	-----	------------------------------



Comment: INSPECT WORK TO CURRENT STEP

S 08/05/23 (x8)

10.0	PACKAGING 1	PACKAGING RESOURCE #1
------	-------------	-----------------------



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: 233A

(8)

11.0	QC21	FINAL INSPECTION/W/O RELEASE
------	------	------------------------------



Comment: FINAL INSPECTION/W/O RELEASE

08/05/26

Job Completion

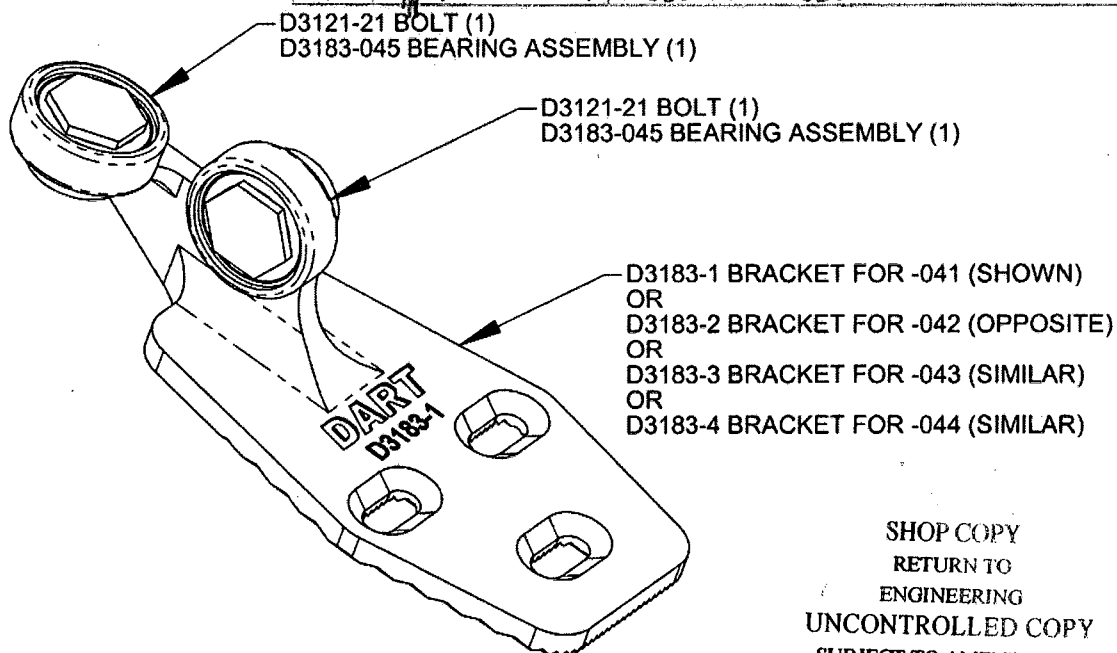


mf 08-05-23

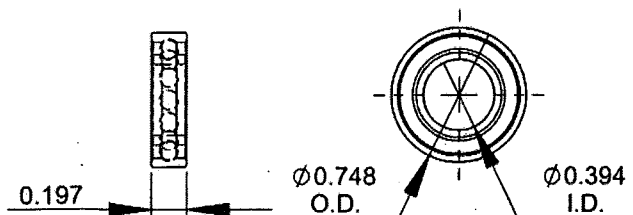


DESIGN #	DRAWN BY CP	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
CHECKED #	APPROVED #	DRAWING NO. <b>D3183</b>	REV. C SHEET 1 OF 4
DATE <b>04.02.17</b>		TITLE <b>BRACKET ASSEMBLY</b>	SCALE 1:1
A.	03.01.24	NEW ISSUE	
B	03.06.17	REMOVE BEARING; 1.012 WS 0.882	
C	04.02.17	ADD -045/-9; 0.182 WAS 0.431	
C1	<del>04.11.09</del>	<del>0.830 WAS 0.850</del>	

RELEASED  
04.03.01

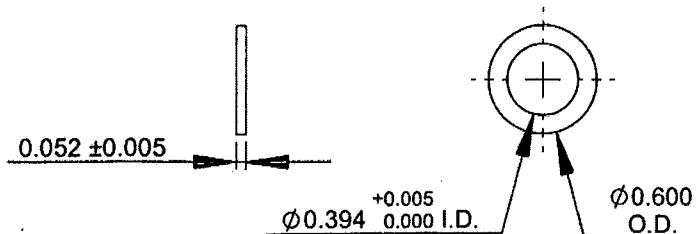


**D3183-041 BRACKET ASSEMBLY (SHOWN)**  
**D3183-042 BRACKET ASSEMBLY (OPPOSITE)**  
**D3183-043 BRACKET ASSEMBLY (SIMILAR)**  
**D3183-044 BRACKET ASSEMBLY (SIMILAR)**



**D3183-5 BEARING:  
SPECIFICATION CONTROL DRAWING**

- 1) SINGLE ROW, DEEP GROOVE, CONRAD TYPE, SHIELDED
- 2) POSSIBLE SUPPLIER: NSK P/N 6800ZZ
- 3) ALL DIMENSIONS ARE IN INCHES



**D3183-7 WASHER**

- 1) MATERIAL: AISI 303 ROUND BAR (M303R) ANNEALED
- 2) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES

COPYRIGHT © 2003 BY DART AEROSPACE LTD.

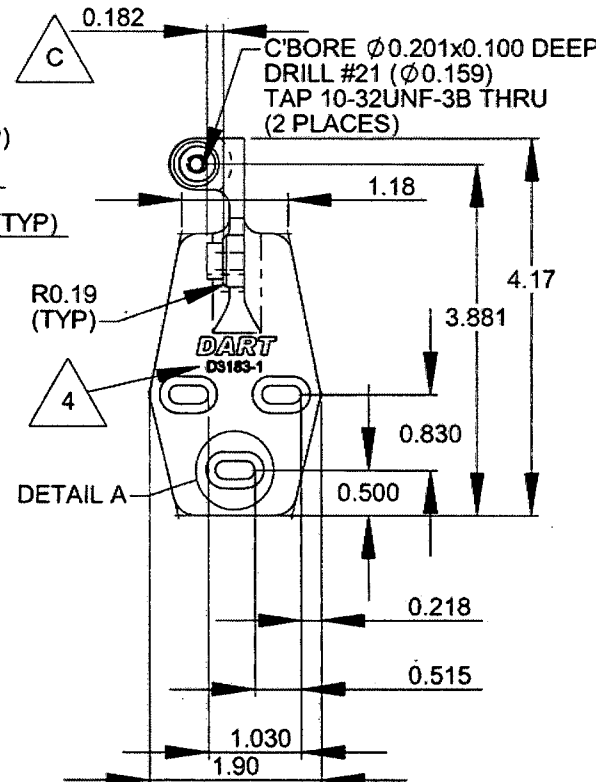
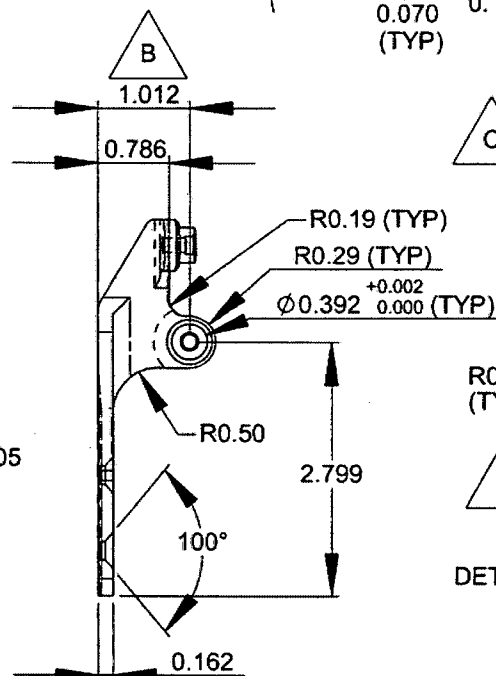
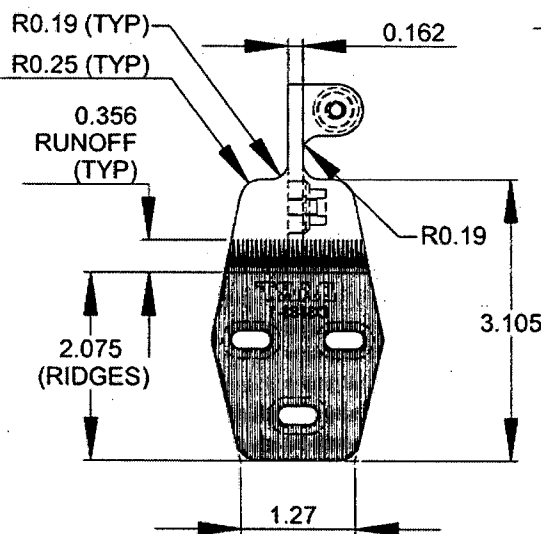
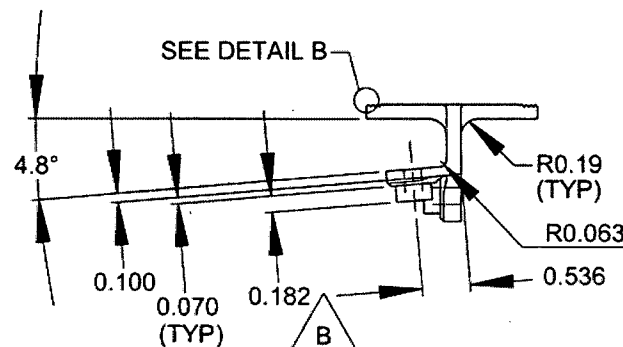
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

**DART**

QA CONTROLLED

DESIGN	DRAWN BY	<b>DART AEROSPACE LTD</b>	REV. C
CHECKED	APPROVED	HAWKESBURY, ONTARIO, CANADA	SHEET 2 OF 4
DATE	TITLE	DRAWING NO.	SCALE
04.02.17	BRACKET ASSEMBLY	D3183	1:2

**RELEASED**  
04-03-01



**D3183-1 BRACKET SHOWN  
D3183-2 BRACKET OPPOSITE**

- 1) D3183-1 CAN BE MADE FROM D3183-3  
D3183-2 CAN BE MADE FROM D3183-4
- 2) MATERIAL: 17-4 SS PER AMS 5604/5643  
(REF DART SPEC. M17-4-B)  
MIN ULTIMATE STRENGTH = 150 ksi  
MIN YIELD STRENGTH = 100 ksi
- 3) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 4) ENGRAVE DART P/N & LOGO AS SHOWN
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) ALL DIMENSIONS ARE IN INCHES

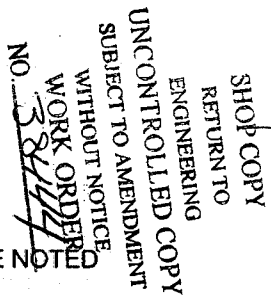
SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 38444

COPYRIGHT © 2003 BY DART AEROSPACE LTD.

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

QA COPIES ISSUED

DESIGN	DRAWN BY	<b>DART AEROSPACE LTD</b> HAWESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO.	REV. C
DATE		D3183	SHEET 3 OF 4
04.02.17		TITLE BRACKET ASSEMBLY	
		SCALE 1:2	



1) MATERIAL: 17-4 SS PER AMS 5604/5643  
(REF DART SPEC. M17-4-B)  
MIN ULTIMATE STRENGTH = 150 ksi  
MIN YIELD STRENGTH = 100 ksi

2) BREAK ALL SHARP EDGES 0.005 TO 0.015

3) ENGRAVE DART P/N & LOGO AS SHOWN

4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

5) ALL DIMENSIONS ARE IN INCHES

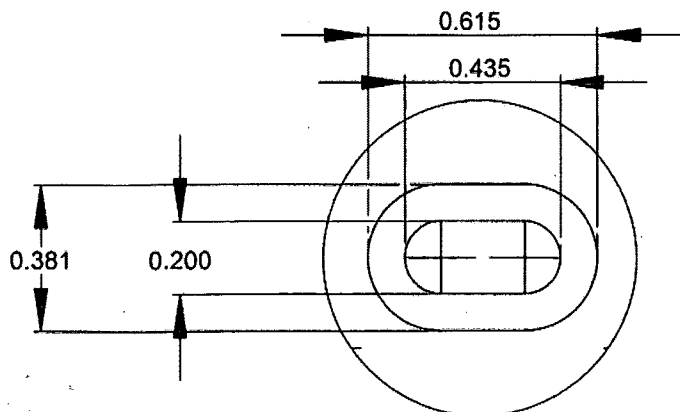
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

**COPYRIGHT © 2003 BY DART AEROSPACE LTD**

24-03-01-#

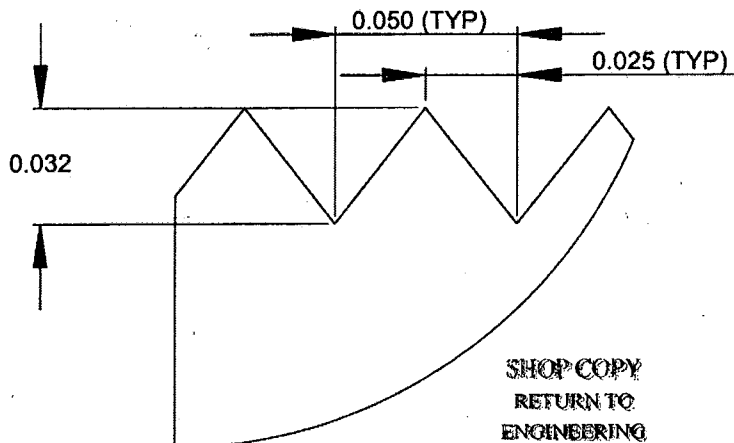


DESIGN <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. <b>D3183</b>	REV. C SHEET 4 OF 4
DATE <b>04.02.17</b>	TITLE <b>BRACKET ASSEMBLY</b>		SCALE 1:1



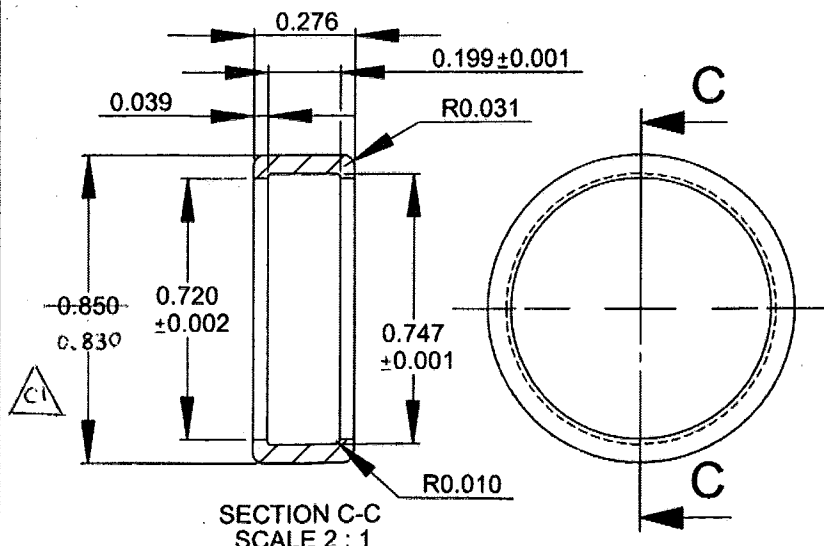
DETAIL A (2 : 1)

**RELEASED**  
04.03.01



DETAIL B (20 : 1)

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 38444



SECTION C-C  
SCALE 2 : 1

**D3183-9 CAP**

- 1) MATERIAL: DELRIN ROD, Ø1.00  
(REF DART SPEC. M-DELRIN-R1.00)
- 2) TOLERANCES ARE PER DART QSI 018  
UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES

**D3183-045 BEARING ASSEMBLY**

- 1) ASSEMBLE D3183-5 BEARING AND  
D3183-9 CAP

**COPYRIGHT © 2003 BY DART AEROSPACE LTD.**

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

<b>DART AEROSPACE LTD</b>		<b>Work Order:</b> 38444
<b>Description:</b> <del>Cross Tube Assembly</del> BRACKET ASSEMBLY		<b>Part Number:</b> D3183-4
<b>Inspection Dwg:</b> D3183	<b>Rev:</b> C1	<b>Page 1 of 2</b>

### FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Inspection Sheet Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
R 0.19	+/- .030	R 0.19	✓			
R 0.25	+/- .030	R 0.25	✓			
0.36	+/- .030	0.365	✓			
2.08	+/- .030	2.08	✓			
<del>1.147</del> 1.155	+/- .010	1.147	✓			
0.71	+/- .030	0.71	✓			
4.26	+/- .030	4.260	✓			
R 0.19	+/- .030	R 0.19	✓			
0.162	+/- .010	0.159	✓			
1.012	+/- .010	1.009	✓			
.786	+/- .010	.785	✓			
R 0.19	+/- .030	R 0.19	✓			
R 0.288	+/- .010	R 0.288	✓			
Ø 0.392	+/- .003	Ø 0.3926	✓			
R 0.50	+/- .030	R 0.50	✓			
3.954	+/- .010	3.951	✓			
100°	+/- .1°	100°	✓			
0.162	+/- .010	0.158	✓			
0.182	+/- .010	0.182	✓			
Ø .201	+ .005 / - .004	.200	✓			
↓ .100	+/- .010	.100	✓			
1.118	+/- .010	1.118	✓			
R 0.19	+/- .030	R 0.19	✓			
5.32	+/- .030	5.325	✓			
5.036	+/- .010	5.037	✓			
2.120	+/- .010	2.120	✓			
1.290	+/- .010	1.290	✓			
0.365	+/- .010	0.366	✓			
0.218	+/- .010	0.216	✓			
0.515	+/- .010	0.514	✓			
1.030	+/- .010	1.033	✓			
1.90	+/- .030	1.888	✓			

<b>Measured by:</b> H.A./Mx	<b>Audited by:</b> J.L	<b>Prototype Approval:</b>	N/A
<b>Date:</b> 08/05/21	<b>Date:</b> 08/05/23	<b>Date:</b>	N/A

Rev	Date	Change	Revised by	Approved
A		New Issue	KJ/JLM	

